Prevention of Significant Air Quality Deterioration and Nonattainment Area New Source Review Georgia Power Company Plant McDonough Combined-Cycle Electric Generating Units, located in Smyrna, Georgia (Cobb County)

FINAL DETERMINATION

SIP/Title V Permit Application No. 17297 January 2008



State of Georgia
Department of Natural Resources
Environmental Protection Division

Air Protection Branch

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Stationary Source Permitting Program

Planning & Support Program

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BACKGROUND

On March 5, 2007, Georgia Power Company submitted an application for an air quality permit to construct and operate three combined cycle turbine blocks at their Plant McDonough. The facility is located at 5551 South Cobb Drive in Smyrna, Cobb County. The three blocks consist of six new combustion turbines with duct burners and heat recovery steam generators and support equipment. As the new equipment is being installed, the two existing coal fired steam-generating units will be removed.

On November 9, 2007, the Division issued a Preliminary Determination stating that the modifications described in Application No. 17297 should be approved. The Preliminary Determination contained a draft Air Quality Permit for the construction and operation of the modified equipment.

A public notice was placed in a newspaper of general circulation in the area (*The Atlanta Journal-Constitution*) on November 13, 2007, notifying the public of the proposed construction and providing the opportunity for written public comment. The public comment period expired on December 13, 2007. The notice also informed the public that the Division would conduct a public meeting and public hearing on December 13, 2007. The Division also provided press releases to the other newspapers in the area.

During the comment period, comments were received from U.S. EPA Region IV and Georgia Power. There were no comments received from the general public.

A copy of the final permit is included in Appendix A. A copy of written comments received during the public comment period is provided in Appendix B.

U.S. EPA REGION 4 COMMENTS

Comments were received from Gregg M. Worley, Chief, Air Permits Section, U.S. EPA Region 4, by email and fax on December 13, 2007. The comments are typed, verbatim, below and were the result of reviews by Jim Little of U.S. EPA Region 4.

Comment 1

Volatile Organic Compounds (VOC) Emissions Limit Compliance Monitoring

On page 20 of the preliminary determination, GEPD states the following regarding requirements for VOC monitoring: "The Division believes that VOC emissions from each combined-cycle system will be in compliance with the VOC LAER emission standards as long as the CO emissions from those systems are in compliance with the corresponding CO BACT emission limits. The CO CEMS [continuous emissions monitoring system] will also constitute periodic monitoring for VOC." From this statement and from conditions in the draft permit, it appears to us that combustion turbine/duct burner VOC emissions will only be measured directly one time over the entire life of the facility - during the initial performance tests. Since VOC emissions are subject to major nonattainment NSR, we strongly recommend that GEPD give consideration to a requirement for additional VOC testing on at least one of the combined cycle/duct burner units. Such testing would provide additional direct verification of compliance with VOC emissions limits and would also provide greater assurance that monitoring of CO emissions serves as a reasonable surrogate for VOC monitoring. Further, we note that there appears to be no provision in the draft permit to determine whether the VOC to CO ratio will change over time.

EPD Response:

The Division agrees that additional VOC testing is warranted. Condition 4.2.8 has been added, requiring testing on each combustion turbine at 5-year intervals. This condition also requires that CO data measured using a CEMS be included with the test report. The Division will be able to use this data to determine if the "VOC to CO ratio" is changing.

Comment 2

Parts per Million Emissions Limits

We assume that all limits expressed as parts per million (ppm) are meant to be on a volumetric dry basis. If this assumption is correct, the final permit should be specific in this regard. (Example: 6 ppm by volume, corrected to 15% oxygen, dry basis.)

EPD Response:

The Division affirms that the limits expressed as ppm are meant to be understood as being by volume on a dry basis. To remove any doubt, the Division has changed "ppm" to "ppmvd" in Conditions 3.3.17 a, b, c, d, and e; 3.3.19 a, b, c, and d; 3.3.26c; and 6.1.7b. v, vii, and x. This change need not be made for Conditions 3.3.28 a, b, and c and 6.1.7b. iv and v, because those conditions have been deleted (see EPD's response to Georgia Power Permit Comments 5 and 11). Additionally, "ppmvd" has been added to the "List of Permit Specific Abbreviations" in Attachment A of the permit.

GEORGIA POWER COMMENTS

Comments were received from M. E. Wilder, Manager, Air Programs, by email on November 21, 2007, and by letter on November 28, 2007.

Preliminary Determination Comment 1

Page 1, 2nd paragraph

"As a major source, any project at Plant McDonough that results in a significant emissions increase of any regulated PSD pollutant or a significant net emissions increase in any NAA NSR pollutant over the contemporaneous 5-year period, triggers the applicable major NSR for that pollutant."

Georgia Power recommends revising the above sentence to more accurately describe PSD and NAA-NSR. In addition, since "regulated NSR pollutant" is a defined term under the regulations (40 C.F.R. § 52.21(b)(50) which is incorporated into the Georgia Rules by reference), it would be more clear to use that term consistently throughout the preliminary determination. We recommend revising the last sentence as follows:

"As a major source, any project at Plant McDonough that results in a significant emissions increase and a significant net emissions increase of any regulated NSR pollutant triggers the applicable major NSR for that pollutant."

EPD Response:

The Division agrees that the use of the term "regulated NSR pollutant" improves the clarity of the Division's statement in the Preliminary Determination.

Preliminary Determination Comment 2

Page 5, 5th paragraph

"After retirement of the first coal-fired unit (McDonough Unit 2), one of the existing cooling towers will be reconfigured to support operation of the second combined-cycle block. After retirement of the second coal-fired unit (McDonough Unit 1), the second existing cooling tower will be reconfigured to support operation of the third combined-cycle block."

Georgia Power would like to clarify that **final** reconfiguration of the cooling towers will occur after the retirement of the coal units. However, some modifications and construction will necessarily be made to the towers or connections to the towers before retirement of the coal units so that commercial operation of the applicable combined-cycle units may start immediately after retirement of the coal units. As we have noted in previously submitted materials, the critical location of this facility means we must be able to have an uninterrupted supply of power from this site.

EPD Response:

The Division finds that this comment clarifies the intent of Georgia Power with regard to the reconfiguration of the cooling towers for use with the combined cycle blocks. This is not relevant to the permit review or the permit content, so no changes are made.

Preliminary Determination Comment 3

Page 6, 3rd paragraph

"Thirdly, this rule also limits the allowable NOx emission rates from each duct burner are 0.3 lb/MMBtu, when firing oil, and 0.2 lb/MMBtu, when firing gas."

The last sentence should be clarified to indicate that the 0.3 lb/mmBtu limit should apply when the combustion turbines are firing oil, since the duct burners will not fire oil.

EPD Response:

The Division agrees with this comment. The permit reflects this.

Preliminary Determination Comment 4

Page 7, 4th paragraph

To more accurately describe PSD applicability, we recommend revising this paragraph as follows:

"The regulations for PSD in 40 C.F.R. § 52.21 require than any new major source or major modification of an existing major source be reviewed to determine whether the new major source or major modification will result in a significant emissions increase and a significant net emissions increase of a regulated NSR pollutant. A major source is defined as either (1) a source that belongs to one of 28 specific source categories, having potential emission of 100 tpy or more of any regulated pollutant, or (2) any other source having potential emissions of 250 tpy or more of any regulated pollutant."

EPD Response:

The Division agrees with this comment and affirms that this reflects PSD rules and that the permit review was carried out according to this.

Preliminary Determination Comment 5

Page 7, 6th paragraph

As noted previously, we recommend that EPD should use the defined term "regulated NSR pollutant" throughout the preliminary determination.

EPD Response:

The Division agrees that the use of the term "regulated NSR pollutant" improves the clarity of the statements in the Preliminary Determination.

Preliminary Determination Comment 6

Page 8

In the last bulleted item under "Federal Rule – PSD," the term "plant" should be replaced with the word "permit" and the phrase "with the opportunity to comment on the proposal" should be added after the word "correspondence" to clarify the public notification requirements.

EPD Response:

The Division agrees with this comment and affirms that public notification was carried out accordingly. However, the Division notes that this bulleted item does not contain the word "correspondence". Rather, the phrase "with the opportunity to comment on the proposal" should be added after the word "circulation".

Preliminary Determination Comment 7

Page 8, 1st paragraph

As noted previously, Georgia Power recommends using the defined term "regulated NSR pollutant."

EPD Response:

The Division agrees that the use of the term "regulated NSR pollutant" improves the clarity of the Preliminary Determination.

Preliminary Determination Comment 8

Page 9

In the subsection discussing applicability of Subpart KKKK, Georgia Power recommends clarifying that the NOx limits apply on a 30-day rolling average basis for combined-cycle units.

EPD Response:

The Division agrees that the NOx limits in 40 CFR 60 Subpart KKKK apply on a 30-day rolling basis. The permit reflects this.

Preliminary Determination Comment 9

Page 11, 3rd paragraph

To avoid any confusion about the applicability of the state Startup, Shutdown, and Malfunction (SSM) Rule to the new NSPS units, the section describing "Startup and Shutdown and Excess Emissions" should expressly state that the state SSM rule applies to all federal and state limits except for the Subpart KKKK and YYYY limits, which have their own SSM provisions as described in those regulations.

EPD Response:

The Division agrees that 40 CFR 60 Subpart KKKK and 40 CFR 63 Subpart YYYY have their own startup, shutdown, and malfunction provisions that apply for these rules.

Preliminary Determination Comment 10

Page 16, last paragraph

"For these boilers, Georgia Power proposed a CO limit of 50 ppm, corrected to 15% oxygen, and a VOC limit of 12 ppm, corrected to 15% oxygen, as methane. The Division has converted these limits to their equivalent pounds per million Btu limits of 0.037 lb/MMBtu for CO and 0.0051 lb/MMBtu for VOC."

Georgia Power notified EPD on August 24, 2007 by letter that the auxiliary boiler limits contained a typo in our original application. The limits should have been specified as "corrected to 3% oxygen" instead of "corrected to 15% oxygen." The background emissions calculations were done correctly and the overall

emissions calculations did not need revision due to this typo. Also, because the lb/mmBtu limits for CO and VOC are so low, Georgia Power recommends setting the limits at one significant digit rather than two. At these low levels of emissions, the second significant digit is not necessarily meaningful. Thus, we recommend the following revision:

"For these boilers, Georgia Power proposed a CO limit of 50 ppm, corrected to 3% oxygen, and a VOC limit of 12 ppm, corrected to 3% oxygen, as methane. The Division has converted these limits to their equivalent pounds per million Btu limits of 0.04 lb/MMBtu for CO and 0.01 lb/MMBtu for VOC."

EPD Response:

The Division agrees that "correct to 15% oxygen" in this paragraph is a typographical error and should have read "corrected to 3% oxygen". This is reflected in the permit. The Division, however, does not agree that the limits should be set at one significant digit. The Division has a longstanding policy that all limits have a minimum of two significant digits, even if only one digit is expressed. The limits are, therefore, not changed as requested.

Preliminary Determination Comment 11

Page 19, 3rd paragraph

The description of averaging times and excess emissions in this paragraph is not consistent with the draft permit. This paragraph should be deleted and a new paragraph should be added to reflect that the NSPS NOx limits applicable to combined cycle operation are based on a 30-day rolling average. The non-NSPS NOx limits are based on a 3-hour average.

EPD Response:

The Division agrees with this comment. The permit reflects this understanding. This paragraph in the Preliminary Determination should have read as follows:

"Thirty-day rolling NOx emission measurements by the NOx CEMS satisfy the NOx monitoring requirement in NSPS Subpart KKKK. These thirty-day rolling NOx emission measurements will also satisfy the periodic monitoring requirement for the Georgia Rule (nnn) emission limits during the ozone season (May 1 through September 30 of each year)."

Preliminary Determination Comment 12

Page 19, last paragraph

"For each of the combined-cycle systems, which include combustion turbines with emission unit ID Nos. CT4A and CT5A, separate tests must be conducted while burning natural gas and ultra low sulfur diesel fuel."

Georgia Power recommends clarifying this sentence. We recommend the following language:

"For combustion turbines with emission unit ID Nos. CT4A and CT5A, separate tests must be conducted while burning natural gas and ultra low sulfur diesel fuel."

EPD Response:

The Division agrees that this comment clarifies the permit requirements for testing.

Preliminary Determination Comment 13

Page 20, last paragraph

To ensure proper characterization and application of the particulate matter and opacity standards, the sixth sentence should read as follows:

"Because the magnitude of those emissions are expected to be comfortably below their allowable levels, performance testing for particulate matter and visible emissions will be conducted only on the two combined cycle systems that include CT4A and CT5A."

EPD Response:

The Division agrees with this comment.

Preliminary Determination Comment 14

Page 24, 1st paragraph under Table 6-2, second sentence

"The NAAQS analysis would include the potential emissions from all emission units at the Georgia Power, except for units that are generally exempt from permitting requirements and are normally operated only in emergency situations."

The words "Plant McDonough facility" were omitted after "Georgia Power" in the above sentence. As currently written, sentence incorrectly implies that a NAAQS analysis would require the modeling of all emissions units at "Georgia Power." Although the NAAQS analysis is not applicable in this case, we feel this clarification should be made.

EPD Response:

The Division agrees with this comment.

Preliminary Determination Comment 15

Page 26, 2nd paragraph

In the first sentence of the second paragraph under "Visibility," the word "impact" should be replaced with "impair." In addition, we recommend noting in this paragraph that the reductions in PM, NOx, and SO_2 may help improve visibility.

EPD Response:

The Division agrees that the word "impair" is more accurate than "impact". The Division agrees that the reductions in particulate matter, NOx, and SO2 would be expected to improve visibility. The Division, however, has not evaluated what impact these reductions will have on air quality.

Preliminary Determination Comment 16

Section 8.0

The "Explanation of the Draft Permit Conditions" should be revised in accordance with any changes that are made in those conditions. In particular, a statement should be added to clarify that Condition 3.3.12(c). is a "state only enforceable condition" because it has been included to enable the excess NOx emission reductions associated with the retirement of the coal-fired units to qualify as Emission Reduction Credits. Likewise, Conditions 6.2.20, 6.2.21, and 6.2.22 should be labeled as "state only

enforceable conditions" given that they simply verify compliance with Condition 3.3.12(c). We are recommending that EPD delete Condition 3.3.28 given the addition of the NOx cap in 3.3.12(c). Therefore, the discussion of that Condition can be deleted from this section. If EPD retains Condition 3.3.28, then that Condition and its supporting conditions should also be described here as "state only enforceable."

EPD Response:

The purpose of Section 8.0 of the Preliminary Determination is to explain the conditions in the draft permit. All changes to the conditions for the final permit will be described and explained in this Final Determination.

Permit Comment 1

Condition 3.3.12(c). We understand that EPD has added the annual NOx tons per year limit to help ensure the excess (i.e., post-netting) NOx reductions associated with the retirement of the coal-fired units will qualify for certification as Emission Reduction Credits. However, Condition 3.3.12(c) is not required by Georgia Rule 391-3-1-.03(8)(c). The combined-cycle units net out of NSR for NOx and are therefore not subject to NAA-NSR for NOx. The proper citation for Condition 3.3.12(c) is Georgia Rule 391-3-1-.01(13)(b)1 that requires reductions to be enforceable to qualify for certification as ERCs. The ERC rules do not require the reductions to be federally enforceable. Because this NOx tonnage cap is not required by any federally enforceable regulation, Condition 3.3.12(c) should be labeled "State Only Enforceable." Any supporting conditions (e.g., recordkeeping, reporting) should also be labeled "State Only Enforceable."

EPD Response:

The Division agrees that the citation on Condition 3.3.12c was not correct. The citation has been changed to 391-3-1-.03(13)(b)1. The Division, however, does not agree that this condition should be a "State Only Enforceable" requirement. It is the understanding of the Division that the NOx Emission Reduction Credits that will be generated by this project may be used to satisfy the requirement in EPA's Nonattainment New Source Review (NAA NSR) to obtain emission offsets for other projects. The Division believes that, because NAA NSR is a federally enforceable requirement, Condition 3.3.12c must be federally enforceable for these credits to be used.

Permit Comment 2

Conditions 3.3.17(a, b) and 3.3.19(a, b). Please insert the word "rolling" into these provisions to specify that the 30-day average should be a rolling average.

EPD Response:

The Division agrees that the limits in Conditions 3.3.17a and 3.3.19a are 30-day rolling average, per 40 CFR 60 Subpart KKKK, and the limits in Conditions 3.3.17b and 3.3.19b are 30-day rolling averages, per Georgia Rule (nnn) and Section 2.121 of the Division's Procedures for Testing and Monitoring Sources of Air Pollutants (PTM). The Division also notes that Condition 3.3.26c is also limited on a 30-day rolling average basis, per Georgia Rule (lll) and PTM Section 2.191, and should have included "rolling" as well. The word "rolling" has been inserted between "30-day" and "average" in each of these conditions.

Permit Comment 3

Condition 3.3.21. The formaldehyde limit applies only to "oil-fired" combustion turbines (CT). The determination of whether a new CT is "oil-fired" is made on an annual basis according to the aggregate annual oil use by all CTs at the site. If sufficient oil was burned at the site, any CT that burned oil will be considered a "lean premix oil-fired stationary combustion turbine." However, if the oil burned at the site was insufficient to trigger the rules, a CT will remain defined as a "gas-fired" CT for that year, even if it burns some oil that year. In recognition that Subpart YYYY may not apply to a CT even if it does in fact burn oil, Condition 3.3.21 should include the words "lean premix oil-fired stationary" after the words "limit the concentration of formaldehyde from any" to ensure proper application of the formaldehyde rules.

EPD Response:

The Division agrees that the change requested by this comment will cause this condition to more clearly reflect the requirements of Subpart YYYY. The requested change has been made.

Permit Comment 4

Conditions 3.3.26(a-b). Georgia Power requests that EPD round the VOC and CO limits for the auxiliary boilers to one significant digit. As discussed earlier, we believe that including the second significant digit in these already low limits does not provide added value. Georgia Power also requests that this Condition specify the applicable averaging times for these limits. This would keep the Condition consistent with other emissions limits established in Part 3.0 of the draft permit.

EPD Response:

As stated in the response to Comment 10, the Division has a policy that all emission limits are assumed to have at least two significant figures. As previously discussed, no changes were made to the numerical limits. The Division has added "on a 3-hour average" to the ends of Condition 3.3.26 a and b.

Permit Comment 5

Condition 3.3.28. With the inclusion of a NOx annual tonnage cap in Condition 3.3.12(c), Georgia Power believes Condition 3.3.28 is no longer necessary. If this Condition is retained in the final permit, it should be marked "State Only Enforceable" and applicable averaging times should be specified. The federally enforceable NOx limits are included separately in Conditions 3.3.17, 3.3.19, and 3.3.26. The limits in Condition 3.3.28 were proposed by Georgia Power to ensure that the excess NOx reductions associated with the replacement of the coal-fired units with combined-cycle units would be practically enforceable and therefore eligible for certification as emission reduction credits. However, EPD has now included a NOx tonnage cap in Condition 3.3.12(c) that should satisfy the need to make the NOx reductions enforceable and eligible for credits. Therefore, 3.3.28 is no longer necessary and should be removed. In addition, 3.3.28(b), if retained, must be revised to apply from October 1 – April 30 (because this limit is federally enforceable during the ozone season only). The citation should be to the ERC rules (Georgia Rule 391-3-1-.01(13)(b)1) which require reductions to be enforceable to qualify for certification.

EPD Response:

The Division agrees that this condition is not needed for the reasons indicated. Condition 3.3.28 has been deleted from the final permit.

Permit Comment 6

Condition 4.2.6(a). Condition 4.2.6(a) requires performance tests to verify compliance with Condition 3.3.28. However, because Condition 3.3.28 should be removed, Condition 4.2.6(a) is unnecessary and should be removed as well.

EPD Response:

The Division agrees that this condition is not needed. Condition 4.2.6a has been deleted from the final permit.

Permit Comment 7

Condition 4.2.6. Georgia Power requests that the NOx performance test applies to only the first auxiliary boiler (AB04), rather than each boiler. These auxiliary boilers will be identical in make and model and thus testing each individual unit is unnecessary. Condition 4.2.7 performance testing can be used to verify the performance of each individual boiler.

EPD Response:

Since the Division has deleted Condition 4.2.6a in response to the previous comment, the remainder of Condition 4.2.6 applies only to AB04. The Division, therefore, agrees with this comment. The introductory text to Condition 4.2.6 has been rewritten to apply to only AB04.

Permit Comment 8

Condition 5.2.10(b). One of the regulatory citations for Condition 5.2.10(b), which requires a CO CEMS, is currently 40 C.F.R. § 52.21, the federal PSD rule. However, nothing in PSD requires a CO CEMS. Therefore, the citation to the federal PSD rule should be deleted, leaving Georgia Rule 391-3-1.02(6)(b)1 as the only regulatory citation. In addition, because the CO limit for the combined-cycle units on natural gas (1.8 ppm, 3-hour rolling average) is so low, the permit should specify a couple of additional exceptions to the PS-4A procedures for this CO CEMS installation.

- a. For the low range span, PS-4A requires "the high-level value shall be between 1.5 times the pollutant concentration corresponding to the emission standard level and the span value." In our case, with a 1.8 CO limit, that would correspond to a maximum span value of 2.7 ppm. Calibration gases for spans that low are simply not available. We suggest that the permit allow a low span of 0 to 10 ppm.
- b. PS-4A also requires the high range of the CO monitor to be 2000 ppm. This is almost impossible for a dual range monitor with the low range of 0 to 10 ppm. At McIntosh Combined-Cycle Facility, EPD allowed a high range of 1000 ppm. A high range of 2000 ppm would likely require the use of two monitors in each CEMS rather than a dual range monitor. We suggest that the permit allow Georgia Power to use a high range of either 1000 ppm or 2000 ppm. This will provide the facility flexibility to determine the best configuration of the CEMS for these units.

EPD Response:

The Division disagrees that 40 CFR 52.21 is not an appropriate citation for the CO CEMS. While Section 52.21 does not explicitly require any particular monitoring systems, the Division believes, based on EPA's Draft October 1990 New Source Review Workshop Manual for Prevention of Significant Deterioration and Nonattainment Area Permitting (NSR Workshop Manual), that monitoring is required so this citation is appropriate. The Section II.B.2. (Enforceablility of Limits) of the NSR Workshop Manual states:

"For any limit or condition to be a legitimate restriction on potential to emit, that limit or condition must be federally-enforceable, which in turn requires practical enforceability (see Appendix A) [see U.S. v. Louisiana-Pacific Corporation, 682 F. Supp. 1122, Civil Action No. 86-A-1880 (D. Colorado, March 22, 1988). Practical enforceability means the source and/or enforcement authority must be able to show continual compliance (or noncompliance) with each limitation or requirement. In other words, adequate testing, monitoring, and record-keeping procedures must be included either in an applicable federally issued permit, or in the applicable federally approved SIP or the permit issued under same."

This citation is, therefore, retained. The Division does, however, agree that the additional exceptions to Performance Specification 4A are appropriate. Condition 5.2.10b has been changed to state that the high-level value on the low-range scale is set at 10 ppm and the high-level value on the high-range scale is set at 1000 ppm.

Permit Comment 9

Condition 5.2.10(c). This condition does not currently have a regulatory cite. The authority for this condition can be found in Georgia Rule 391-3-1-.02(6)(a)2.(xii).

EPD Response:

The Division agrees with this comment. The citation has been added.

Permit Comment 10

Condition 5.2.15. Georgia Power requests a clarification on the requirements in Appendix F Procedure 1 for the low range of the CO monitor for the McDonough Combined-Cycle units, similar to current EPD practices at other facilities. EPD conducted a study at McIntosh and other units that proved that the monitor results cannot be non-linear on extremely small ranges like 0 to 10 ppm. Based on that work, EPD only requires the zero and span drift results for the low range on the day that the high range cylinder gas audit (CGA) is performed.

EPD Response:

The Division agrees with this comment. Therefore, Condition 5.2.15 has been modified by the addition of paragraph c as follows:

"c. The CGA is only required on the high-range scale of a dual-range analyzer. The zero and high-level calibration drift results for the low-range scale conducted on the day of the CGA shall be submitted in lieu of the low-range scale CGA."

Permit Comment 11

Condition 6.1.7(b)(iv, v). The definitions of exceedances in Conditions 6.1.7(b)(iv) and (v) should be removed. Originally, those Conditions were necessary to define an exceedance of the NOx limits found in Condition 3.3.28. However, because Condition 3.3.28 should be removed in light of the annual NOx limit in 3.3.12(c), the definitions of exceedances in Conditions 6.1.7(b)(iv) and (v) should be removed as well. If 3.3.28 is retained, these provisions should be labeled "**State Only Enforceable**."

EPD Response:

The Division agrees with this comment. Therefore, Conditions 6.1.7b iv and v have been deleted.

Permit Comment 12

Condition 6.2.18. Georgia Power requests that Condition 6.2.18 be removed from the permit because, once Condition 3.3.28 is removed (in light of the addition of Condition 3.3.12(c)), no applicable short term average NOx limit will remain for which a three-hour average would be appropriate. Conditions 6.2.20, 6.2.21, and 6.2.22 will provide for verification of the annual NOx mass emission limit.

EPD Response:

The Division agrees that this condition is not needed. Therefore, Condition 6.2.18 has been deleted.

Permit Comment 13

Conditions 6.2.20, 6.2.21, and 6.2.22. Because these conditions only verify compliance with a condition that is state only enforceable, namely Condition 3.3.12(c), these conditions should also be labeled as "**State Only Enforceable**."

EPD Response:

The Division disagrees with this comment since Condition 3.3.12c has not been made state only enforceable. See the Division's response to Permit Comment 1 for more details. No changes have been made to these conditions.

Permit Comment 14

Condition 6.2.31(h, i). Condition 6.2.31(i) is not necessary. CGAs are quarterly accuracy assessments and are thus already required to be submitted in Condition 6.2.31(h).

EPD Response:

The Division agrees with this comment. Condition 6.2.31i has been deleted.

PUBLIC COMMENTS

A public hearing was held on December 13, 2007, at the Comfort Inn & Suites Galleria, 2000 Highlands Parkway, S.E., Smyrna, Georgia 30082. No comments were received at this hearing. Nor were any comments received from any members of the general public during the comment period.

EPD CHANGES

Minor typographical errors, such as punctuation and subject-verb agreement, have been corrected in several permit conditions. These corrections will not be addressed in detail.

Conditions 4.2.6a, 6.1.7b. iv and v, and 6.2.18, which were deleted as described earlier in this Final Determination, have been labeled "Reserved" in order to avoid extensive renumbering of the remainder of the permit conditions.

The table in Section 3.1.1 of the permit has been updated to reflect changes to applicable permit conditions for each emission unit.

Condition 3.3.12 a and b have been revised to clarify that the emission limits apply to the combustion turbine blocks and do not include the auxiliary boilers. The numerical limits, however, were calculated including emissions from the auxiliary boilers so the limits have been adjusted to exclude these emissions. The annual contribution from each of the auxiliary boilers is 3.2 tons per year for CO and 0.4 tons per year for VOC. The new limits for CO were set by subtracting 3 tons per year from the old limits. The resulting CO limits are 259 tons per year for Blocks 4 and 5 and 238 tons per year for Block 6. The VOC limits were not adjusted due to the small (less than one ton per year) contribution from the auxiliary boilers.

Condition 3.3.12c has been revised to clarify that the emission limits for total NOx emissions from each block includes the emissions from the corresponding auxiliary boilers.

Condition 4.1.30 has been revised to clarify the procedure intended for determining VOC concentration. The revised conditions is as follows:

"o. Method 25A for the determination of concentrations of volatile organic compounds. The concentration of formaldehyde measured using Method 320 shall be added to the <u>results of Method 25A to determine the VOC</u> concentration. If data from Method 320 is not available, a value of 0.091 ppm formaldehyde may be used. The Permittee may use Method 18 for determining methane and ethane concentrations to subtract from the results of Method 25A."

Condition 6.1.7b ix has been revised (along with the previously mentioned revision to Condition 3.3.12c) to clarify that emissions from each auxiliary boiler must be included with the emissions from the two turbines in the block.

Draft Condition 6.1.7b x contains a typographical error. The emission correction factor should read "3% oxygen" instead of "15% oxygen". This condition has been corrected.

Condition 6.1.7b xi has been added to specify the exceedances to be reported for the Georgia Rule (nnn) NOx limitation.

The citation 40 CFR 52.21 has been deleted from Conditions 6.2.20, 6.2.21, and 6.2.22. These conditions involve NOx emissions, which are not subject to the PSD requirements in this permit.

Conditions 6.2.38 and 6.2.39 have been added to require tracking the NOx emissions from the auxiliary boilers. To determine if the emission limits in Condition 3.3.12c have been exceeded, the total NOx emissions for a boiler must be added to the total emissions from the turbines in its corresponding combustion turbine block.

APPENDIX A

AIR QUALITY PERMIT 4911-067-0003-V-02-2

APPENDIX B

WRITTEN COMMENTS
RECEIVED DURING
COMMENT PERIOD